

ADOPTED BUDGET CAPITAL FUNDS 2020-2021



Joseph J. Solomon Mayor
City of Warwick

CAPITAL IMPROVEMENTS PROGRAM AND BUDGET

Sixty years ago, the Department of City Plan transmitted the first Capital Improvements Program and Budget as required by Article V (11) of the City Charter to the Office of the Mayor and to the City Council.

A Capital Improvements Program

A Capital Improvements Program is, in essence, a listing of the priorities of those vitally necessary items of the community within the context of the community's fiscal ability to meet them during a five-year program period. Obviously, such a program cannot be a static program. There must be a yearly re-appraisal of the changing needs of the community and the opportunity to adjust these changes in priority ratings for capital improvements.

In order to do this type of scheduling of capital improvements, a longer period than simply one year is required. A period of at least five years beyond the current fiscal year is required to forecast where the City believes it will face future demands and growth and allow for careful planning and management of capital and infrastructure assets. Capital improvements are projects with long, useful lives that maintain, upgrade or replace public infrastructure and public service providing facilities.

Each year, the City of Warwick produces a CIP, a spending "blueprint" based upon the most current project priorities and needs. Continued investments in infrastructure and facilities are critical to support and enhance neighborhoods, stimulate the economy and improve services.

Planning for capital improvements is an ongoing process. As the City's infrastructure ages and as needs change, capital programs and priorities must be adjusted. New construction may be required to accommodate increased demand or replace aging facilities while existing infrastructure requires periodic rehabilitation, replacement or other improvements to protect the City's previous investments. The CIP is not intended to be an all-inclusive inventory of the City's capital needs for the upcoming five years. It is a document that summarizes planned or needed capital improvements.

A Capital Improvements Budget

A Capital Improvements Budget is the logical tool for implementation of the Capital Improvements Program. It lists the necessary capital improvements and, more importantly, recommends a schedule of when bonds should be issued without impairing the credit posture of the community.

The Capital Improvements Budget differs from the operational budget in that it will cover items that cannot be financed through current City revenue and involves projects of a relatively lasting nature. The benefits to Warwick to be derived from a Capital Improvements Program and Budget are:

- 1) Improvements will be undertaken in the order of their importance to the community.
- 2) Interrelationships of proposed improvements will be recognized and coordination made possible.
- 3) The relationship of the proposed improvements to the operation and maintenance factors of the cost of City government will be indicated.
- 4) Financing of the cost of the proposed improvements can be more advantageously arranged.
- 5) Debt service requirements for the financing of the proposed improvements can be coordinated with the requirements of existing debt and other demands against the revenues of the City.
- 6) Ultimate economy will ensue.

The reasons for adopting the Capital Budget prior to the commencement of the fiscal year are:

- 1) Debt service requirements for the proposed improvements can be coordinated with the requirements of existing debt service requirements and other requirements of revenues of the City.
- 2) Any bond ordinances adopted during the fiscal year may require a special election with its attendant unanticipated expenditures.
- 3) If bonds are issued and payment of principal and interest is required during the fiscal year, it will require further unanticipated amounts clearly not budgeted.

ELEMENT I

CITY DEPARTMENTS

PROJECTS AND RECOMMENDATION

PUBLIC WORKS

PW- 1 Front Garage Replacement

The Department of Public Works is proposing to repair the front garage. It is in need of substantial repair; spalling on the outermost corners has been present for several years. Additionally, the roof is in need of repair. Due to the deterioration of the current structure, a new City Automotive garage will cost approximately \$1,000,000 for a Clear Span 200 x 200 building. Estimated life of the project is 75 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$500,000	\$500,000

PW-2 Salt Barn

The Department stores a large amount of material to treat City roadways during the winter months, with no way to keep it protected from the elements, resulting in some eroding of the pile and wasted material. Purchase of a “salt barn” for storage of materials will provide for a more cost-effective approach to storing the material. Estimated project life is 30 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$160,000

PW-3 Rear Garage Gutter System

The rear garage has industrial/commercial gutters that are in need of replacement. These gutters prevent the water from infiltrating into the garage and causing water damage and the potential for mold growth. Normally, the Department would be able to install gutters on most buildings; however, these are heavy-duty gutters and downspouts on a metal building that require lifts and special brackets. Projected life span is 40 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$30,000

PW-4 Repair Alternate 1

Should the entire front garage not be completely replaced, there is an urgent need to repair the roof. The current facility has undergone multiple patches and repairs over the years and is in need of a total replacement. Projected life span is 20 years.

Allocation of funds:

Year: 2020-2021

Amount: \$60,000

PW-5 Replacement of Tree Service Truck

Due to the excessive amounts of calls related to trees throughout the City, this Department would benefit greatly from the purchase of an aerial boom truck for tree work. The current vehicle would be used as a reserve truck; however, it is quite aged for a vehicle that is constantly in demand. A new vehicle has a projected life of 20 years.

Allocation of funds:

Year: 2020-2021

Amount: \$200,000

PW-6 Replacement of Large Chipper

The chipper is nearing the end of its useful life as a front line piece of equipment and is in need of replacement. New equipment has an estimated life span of 20 years.

Allocation of funds:

Year: 2020-2021

Amount: \$75,000

PW-7 Portable Large Equipment Lifts

Nearly five years ago, the Department purchased two of these lifts, and, in doing so, increased the productivity in the heavy equipment repair division. Elevating the equipment puts less stress on the mechanic and allows for a much greater visual inspection, thereby potentially preventing costly repairs in the future. Projected life is 20 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$60,000

PW-8 Purchase of Four Sanitation Vehicles

The Sanitation Division is in need of vehicle replacement. The Division is requesting to purchase four trucks over the next two fiscal years. Life span is projected at 20 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$600,000	\$600,000

PW-9 Diesel Particulate Filter Cleaner

All of the large equipment located throughout the City has particulate filters, which are sent out for cleaning on a regular basis. The cost to “re-bake” these filters is approximately \$200. Current annual cost for this service is \$5,000 to \$6,000. By purchasing the equipment, the Department would realize payback within four to five years, and the downtime for vehicle maintenance would be dramatically reduced. Additionally, the Department could generate revenue by reaching out to other municipalities and private businesses in need of this service. Twenty years is the projected life.

Allocation of funds:

Year:	2020-2021
Amount:	\$24,000

PW-10 Rewiring of 925 Sandy Lane Facility

The Department of Public Works/Water Department is in need of rewiring. Recently, there was a minor electrical fire in the Water Department, and, while this did not result in any observable damage, the wiring was deemed inadequate. The contractor traced the wires and found that the previous repairs were a “patch job.” Projected life of 30 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$30,000

PW-11 Purchase of Stetco Mini Clam Catch Basin Cleaning Truck

The Department is responsible for cleaning catch basins throughout the City and maintaining a cleaning schedule per the consent agreement with the state Department of Environmental Management for stormwater management. This vehicle is necessary for completing this task throughout our community. Projected life span is 10 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$140,000

LIBRARY

L-1 Service Elevator

The service elevator, which is over 40 years old, is in urgent need of repairs. It's the only mechanical access to the library's third floor, which is used for storage and book sorting. Able-bodied staff have to use the stairs to retrieve stored items, and the handicapped don't have access. The elevator is driven by a hydraulic lift, which is mounted to the base of the elevator shaft with concrete. The metal base has corroded and leaked hydraulic fluid into the sand under the concrete at the bottom of the elevator shaft. The concrete needs to be broken, and, along with the shaft, removed. The sand needs to be removed and properly disposed of, and a new lift needs to be crafted and installed. The second component of the repair process involves replacement of the current relay logic system, which is prone to failure, thus possibly causing passengers to become trapped. The current system is no longer in production and would be replaced by a solid-state control unit with a life expectancy of 30 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$180,000

L-2 Carpet Replacement

The central library on Sandy Lane is visited by almost 1,200 patrons each day. Most of the public areas have been carpeted over the past five to six years with grant and maintenance monies. The book stacks area, which comprises a large part of the facility, has carpet that is more than 20 years old and is worn, soiled, and difficult to clean. The library proposes to seek a grant to cover a portion of the cost, but it is unlikely that full grant funding would be awarded. Expected life of new carpeting is 20 years.

Allocation of funds:

Year:	2021-2022
Amount:	\$100,000

L-3 HVAC Replacement

The central library's HVAC units consist of two boilers and 11 rooftop heating and cooling units, controlled by a computerized system. The current HVAC equipment was installed in 1997 and is beyond its life expectancy; it is expensive to maintain, parts are difficult to locate, and the computer controller is antiquated and proprietary. Heating and cooling in half of the building can only be on or off; there are no setbacks. While the system is set to go off at night and on in the morning, it requires manual intervention on very cold nights to prevent frozen pipes. The system is not energy efficient and is problematic. A new system would service the library for an estimated 25 years.

The library proposes that funding for the HVAC replacement could come from a loan from the RI Infrastructure Bank, which would be repaid by the library and would not increase the annual budget, or a bond issue. The project would also be eligible for energy credits. Either funding option would require approval from the City Administration.

Allocation of funds:

Year:	2022-2023
Amount:	\$859,000

FIRE DEPARTMENT

F-1 Apparatus Replacement

Many of the Department's vehicles and apparatus are in need of replacement due to age. The Department proposes replacing these vehicles over time. Many factors are considered when determining fire apparatus replacement. The age of the vehicle, its true condition, forecasted repair costs, engine hours and mileage are some of the considerations. Apparatus in need of replacement includes Engines 8, 5, 2, 1, 10 and 3; Rescues 1, 3, 2, and 4; and Ladders 1 and 2.

Allocation of funds:

Year:	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Amount:	\$1,000,000	\$750,000	\$750,000	\$750,000	\$1,300,000

F-2 Fire Station Site and Building Improvements

Many of the Department's facilities are aging and in need of updating. The lighting is outdated, and many have windows original to the stations, which were constructed in the 1970s. Repairs are proposed for Stations 4, 6, and 9 in FY21, for Stations 8, 5, and 3 in FY22, and for Stations 2 and 1 in FY23. Improvements would include new windows, updated LED lights, furnace replacement, ramp paving, roof repairs and the like.

Allocation of funds:

Year:	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Amount:	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000

F-3 Fire Dispatch Center

Improvements are necessary to ensure the effective, timely and efficient operations of the center.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$25,000	\$25,000

POLICE DEPARTMENT

P-1 Headquarter Renovations

The Warwick Police Department's men's locker room and Board of Public Safety Room have not been renovated since their original construction in 1976. The locker room's ceiling and roof are original and leak on rainy days. Many of the lockers are no longer serviceable and replacement parts no longer exist. Further, the floor tiles are cracked and in poor condition and the bathroom and shower stalls have mismatched sinks and fixtures, poor lighting and virtually non-existent ventilation. The improvement project calls for replacement of fixtures, lockers, tiles and updated building materials. Using City labor, cost of the project is estimated at \$45,000 and would take approximately three months to complete. The Board of Public Safety Room, which is used as a professional meeting center for City business and a site for official recognition of appointments and promotions, has not been updated in decades. The walls, table and chairs are outdated, and everything has passed its life expectancy by decades. Paneling is original to the building's construction. Using City labor, total cost of renovations is estimated at \$25,000 and could be completed in concert with improvements to the men's locker room. Completion of this sorely-needed work would enhance the well-being and health of employees and improve the aesthetics of the facility. The locker room project is the immediate priority.

Allocation of funds:

Year:	2020-2021
Amount:	\$70,000

SCHOOL DEPARTMENT

S-1 Pilgrim Emergency Generator Replacement

The emergency generator at Pilgrim High School is original to the building. It runs life safety equipment and heat during power outages. At 57 years old, it has reached the end of its useful life. With Pilgrim designated as one of the City's emergency shelters, the design and replacement of the emergency generator is critical both to the school itself and the City. Estimated life of a new generator is 40 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$20,000	\$230,000

S-2 Warwick Veterans Middle School Emergency Generator Replacement

The emergency generator at Warwick Veteran's Memorial Middle School was sized to run life safety equipment only. In the event of an extended power failure, the heating system would not run. In a Citywide emergency or disaster, Warwick Vets would not be able to be used as a shelter if there were an extended power failure in the area. This project has been approved, under the School Department's Capital Improvement Plan, by the Rhode Island Department of Education for a minimum of a 35 percent Housing Aid Reimbursement. This equipment has an estimated 40-year life expectancy.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$20,000	\$230,000

S-3 Warwick Neck Elementary School Elevator

Warwick Neck Elementary School, constructed in 1958, with additions built in 1968 and 1992, is not in compliance with Federal law and ADA regulations. To comply, an elevator will need to be installed so all students, faculty, staff, and visitors will be able to access all levels of the building and exterior. Estimated life of the project is 40 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$32,000	\$368,000

S-4 Warwick Career and Technical Center Emergency Generator Exhaust System

At the Warwick Career and Technical Center, the room that houses the emergency generator lacks a proper air exhaust system (engine exhaust is vented directly to the exterior). The design and installation of an exhaust system would eliminate the potential for engine exhaust leaks to enter the building. This system is expected to have a 40-year life expectancy.

Allocation of funds:

Year: 2020-2021

Amount: \$35,000

S-5 Winman Middle School Emergency Generator Replacement

The emergency generator at Winman Middle School is original to the building, circa 1972. The water jacket that cools the unit has failed and is leaking, and the replacement parts are no longer available because of age. This generating system powers all life safety equipment in the building and is required by law. Funds are being requested to replace the emergency power generating system. Expected life of a new generator is 40 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$250,000

MANAGEMENT INFORMATION SERVICES

MIS-1 Data Backup Storage Appliance

Without adequate data back-up and retention, the City is at risk of devastating consequences stemming from either data loss due to disaster or cyber-attack. The appliance the Management Information Services (MIS) Department currently uses to secure back-ups of our critical operational data is no longer capable of accommodating the volume of data in an acceptable fashion. This puts the risk of recovery in the case of a disaster or cybersecurity breach at an unacceptable level.

In August of 2020, because of an insurance payment the City has been making for the past five years, MIS will be able to replace their existing appliance at its then-current sizing for a nominal installation fee. However, because of exponential data growth over the last five years, that will not be sufficient to handle the City's needs. It is estimated that the total cost of an adequately-sized appliance would be approximately \$150,000 to \$175,000. It is the Department's intention to use the trade-in value of the smaller appliance that would be due to the City and negotiate a \$100,000 or lower upgrade cost with trade-in to acquire an appliance that will sustain the City for future years.

Allocation of funds:

Year:	2020-2021
Amount:	\$100,000

MIS-2 Virtual Machine Host Server

The current processing capabilities have reached their limits. Without a replacement of the machine, system performance will begin to denigrate until response times become unacceptable to the user base. The MIS Department currently operates the City's technical operational infrastructure as a "virtual environment." This means that almost all of the individual servers used to host the various applications within the City do so "virtually" on a single physical machine. This physical machine has sufficient processing power to host all of these virtual machines in an effective manner by allowing for dynamic allocation of processing resources.

The current physical machine has reached end-of-life and requires replacement so that it can continue to adequately provide the processing power required by the increase in system demand over the past five years.

Allocation of funds:

Year: 2020-2021

Amount: \$40,000

PARKS & RECREATION

PR 1 – Garbage Truck Replacement

The Parks & Recreation Department oversees a number of municipal parks and recreational facilities. The Department presently has two garbage trucks, both of which are nearing the end of their useful lives. A new vehicle is critical to ensuring that refuse can be picked up at municipal recreational facilities in a timely fashion. Estimated life of up to 15 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$94,000	\$94,000

PR 2 – Purchase of Zamboni

The Thayer and Warburton arenas are two of the busier properties under the purview of Parks & Recreation. The Department presently has two Zambonis at Thayer and Warburton arenas. These have become increasingly unreliable and do not make ice of the same quality that they once did. Having a functioning Zamboni or equivalent machine allows the Department to sell more ice time and avoid service disruptions at the skating rinks. By adding another Zamboni to the fleet, the useful lives of the existing machines can be extended. Estimated equipment life is up to 15 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$60,000	\$60,000

PR 3 – Purchase of Diesel Scag Lawnmowers

The Parks & Recreation Department needs to establish a plan for replacing aging machines. By purchasing two (2) lawnmowers in FY21 and an additional mower in FY22, the inventory of these heavily-used machines can be maintained without service disruptions in City parks. The Department is proposing to purchase three (3) Scag Lawnmowers Turf Tiger 61 W Kubota Diesel, to be used along with existing mowers to maintain municipal parks and fields. Estimated life of up to 15 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$31,756	\$15,878

PR 4 – McDermott Pool Handicapped Chair Lift

McDermott Pool is required to have a chairlift that can assist people with disabilities in entering and exiting both swimming pools. To this end, the facility requires either a grounded lift at each pool or a lift that can be moved from one pool to the other. The current mobile lift was not properly maintained and has been overcome by rust. A new lift would assure ADA compliance. The Department is proposing to purchase a stainless-steel and aluminum lift for maximum durability. The proposed unit is completely portable and requires absolutely no mounting to the pool deck. The PAL lift will support up to 300 lbs., perfect for facilities like McDermott, where the equipment can be stored while not in use and is needed in multiple locations. Estimated life is 10 to 15 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$8,000

PR 5 – Rubber-Based Pool Paint for McDermott Pool

The bottom and sides of the large pool at McDermott Pool have not been repainted in several years, resulting in chipping paint at the bottom of the pool. McDermott Pool is scheduled to be drained during the last two weeks of August 2020, during which time the Building Maintenance team will paint the interior of the pool. The work is supposed to occur approximately every three (3) years, but this maintenance work has not been performed in at least five (5) years. Estimated life is four (4) years.

Allocation of funds:

Year:	2020-2021
Amount:	\$5,000

PR 6 – Resurfacing of Small Pool

The state Department of Health recently inspected the McDermott facility and mandated that the small pool be drained and resurfaced. This project would best be facilitated by an outside contractor that specializes in such work. This work can be performed at any time, provided that the area is blocked off with plastic. Estimated life expectancy is up to 10 years.

Allocation of funds:

Year: 2020-2021

Amount: \$4,000

PR 7 – Replacement of Grating on Pool Bridge

The bridge in the middle of the large pool separates the deep (lap swimming end) and shallow (family swim) ends, is often used by lifeguards to get from one side of the pool to the other, and is also used by lifeguards to monitor swimmers. The bridge still has all of the original parts dating to the pool's opening in the 1970s. In recent years, the grates have become slippery and have begun cracking, and, for the safety of those who use the facility, the grate on the bridge should be replaced. This project has a projected life of 30 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$7,900	\$7,900

PR 8 – Harbormaster Boat Engine Replacement or Grant Match

The operations of the Harbormaster's Office are an important part of maintaining order and public outreach within Warwick's boating community. The requested funds could either refurbish the engine on Boat #4 or possibly provide the match on a successful grant application for a new boat. Estimated life is up to 12 years.

Allocation of funds:

Year: 2020-2021

Amount: \$25,000

PR 9 – Dehumidifiers for Thayer and Warburton Arenas

The Thayer and Warburton ice arenas presently do not have a functioning system to control humidity, resulting in a fog forming over both rinks on humid summer days. The ability to better control the humidity would provide a more pleasant experience for rink patrons and would increase the Department's ability to rent more ice time in the summer months. The Department proposes to purchase four (4) industrial humidifiers, which would be mounted in the two rinks to control humidity. Estimated life is up to 15 years.

Allocation of funds:

Year:	2020-2021	2021-2022
Amount:	\$13,000	\$13,000

ELEMENT I

APPENDIX

2020 CAPITAL IMPROVEMENT PROGRAM: CITY DEPARTMENTS

Department Project	2020-2021 (000 \$)	2021-2022 (000 \$)	2022-2023 (000 \$)	2023-2024 (000 \$)	2024-2025 (000 \$)	Total (000 \$)
Department of Public Works						
PW-1 Front Garage Replacement	500	a				1000
PW-2 Salt Barn	160	a	500	a		160
PW-3 Rear Garage Gutter System	30	a				30
PW-4 Repair Alternate 1	60	a				60
PW-5 Replacement of Tree Service Truck	200	g				200
PW-6 Replacement of Large Chipper	75	g				75
PW-7 Portable Large Equipment Lifts	60	a				60
PW-8 Purchase of Four Sanitation Vehicles	600	g	600	g		1200
PW-9 Diesel Particulate Filter Cleaner	24	a				24
PW-10 Rewiring of 825 Sandy Lane Facility	30	a				30
PW-11 Setco Mini Clam Catch Basin Cleaning Truck	140	g				140
Library						
L-1 Service Elevator	180	a,d				180
L-2 Carpet Replacement			100	a		100
L-3 HVAC Replacement			859	b		859
Fire Department						
F-1 Apparatus Replacement	1,000	g	750	g	750	4,550
F-2 Station Site and Building Improvements	75	a	75	a	75	375
F-3 Fire Dispatch Center	25	a	25	a		50
Police Department						
P-1 Headquarter Renovations	70	a				70
School Department						
S-1 Pilgrim Emergency Generator Replacement	20	a,f	230	a,f		250
S-2 Warwick Vets Emergency Generator Repl.	20	a,f	230	a,f		250
S-3 Warwick Neck Elementary School Elevator	32	a	368	a		400
S-4 WCTC Emergency Generator Exhaust Sys	35	a				35
S-5 Winman Emergency Generator Replacement	250	a				250
Management Information Services						
MS-1 Data Backup Storage Appliance	100	a				100
MS-2 Virtual Machine Host Server	40	a				40
Parks & Recreation						
PR-1 Garbage Truck Replacement	94	g	94	g		188
PR-2 Purchase of Zamboni	60	g	60	g		120
PR-3 Purchase of Diesel Scag Lawnmowers	32	g	16	g		48
PR-4 McDermott Pool Handicapped Chair Lift	8	a				8
PR-5 Rubber-Based Pool Paint for McDermott P	5	a				5
PR-6 Resurfacing of Small Pool	4	g				4
PR-7 Replacement of Gating on Pool Bridge	8	g	8	g		16
PR-8 HarborMaster Boat Engine Replacement or C	25	g				25
PR-9 Detumidifiers for Thayer and Valburton Aven	13	g	13	g		26
Total (000 \$)	3975	3069	1684	825	1375	10928
Funding Sources						
A. General Operations	1634	1354	75	75	75	3213
B. Bonds Unissued			859			859
C. Bonds Issued	90					90
D. Future Bond						
E. Fed Grant		174				174
F. State Grant	2251	1541	750	750	1300	6592
G. Lease Purchase/Other						
Total (000 \$)	3975	3069	1684	825	1375	10928

ELEMENT II

- A. Warwick Water Department*
- B. Warwick Sewer Authority*

DEPARTMENT PROJECTS AND RECOMMENDATION

A. WATER DEPARTMENT

W-1 Water Department Capital Improvements and Infrastructure Replacement

Funds will be used to replace, rehabilitate and upgrade existing transmission and distribution mains in conjunction with the state Department of Transportation, the Warwick Sewer Authority, National Grid, and Department of Public Works paving projects. Funding for these projects will originate from Water Department revenues.

Allocation of Funds:					
Year:	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Amount:	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000

WARWICK SEWER AUTHORITY

WSA-1 Oakland Beach Interceptor

This is a critical infrastructure project that is required to repair the existing gravity sewer line interceptor. Once repaired with an approved technology, the useful life will be extended to 75+ years.

Allocation of funds:

Year: 2020-2021

Amount: \$1,300,000

WSA-2 Airport Interceptor Rehabilitation

This project is required to repair the existing gravity sewer line interceptor. Once repaired with an approved technology, the useful life will be extended to 75+ years. This line is approximately 5,107 linear feet of 48" gravity line and 42" gravity line constructed reinforced concrete pipe.

Allocation of funds:

Year: 2020-2021

Amount: \$4,500,000

WSA-3 Video Inspection Vehicle

The Warwick Sewer Authority is required by the United States Environmental Protection Agency and the Rhode Island Department of Environmental Management to perform a CMOM (Capacity, Management Operations and Maintenance) program. This program is required to video inspect 20 percent of the gravity sewer system each year. The WSA's current vehicle no longer functions, as the hardware and software are no longer supported. The new vehicle's life expectancy is estimated at 12 years.

Allocation of funds:

Year: 2020-2021

Amount: \$200,000

WSA-4 Inlet Grit Conveyor

This piece of equipment is necessary because it conveys the removed grit spoils from the WSA process to a Dumpster for disposal. It has reached its useful life and needs to be replaced as the hopper is rotted, resulting in the spoils falling to the floor and not being conveyed properly.

Allocation of Funds:

Year: 2020-2021

Amount: \$70,000

WSA-5 Maintenance Service Vehicle

The WSA's maintenance vehicles are utilized to perform routine and emergency maintenance at all remote pump stations and the treatment facility. The current service vehicle frequently breaks down, is not reliable as an emergency service unit and needs to be replaced. Estimated life is seven (7) years.

Allocation of Funds:

Year: 2020-2021

Amount: \$50,000

WSA-6 Davidson Pump Station Emergency Standby Generator

The existing generator has reached its useful life and requires frequent repairs, making it unreliable for an emergency, and some of the installed equipment is no longer manufactured. This project would allow the WSA to replace the emergency standby generator, allowing the pump station to remain operational and in environmental compliance from a sanitary standpoint during a power outage. A new generator's life expectancy is estimated at 20 years.

Allocation of Funds:

Year:	2020-2021
Amount:	\$25,000

WSA-7 Bayside Sewer Extension

The majority of homes (70 percent) in the subject area have cesspools, causing an environmental impact. The project would install a low-pressure sewer system in the Bayside area of Warwick. This would be accomplished with a combination of directional drilling and open cut construction. The estimated time of the project is two (2) years. Estimated useful life of the infrastructure is 50 + years.

Allocation of Funds:

Year:	2020-2021	2021-2022
Amount:	\$4,773,829	\$11,850,000

WSA-8 Gravity Sewer Repairs

This is a critical infrastructure project that is required to repair the existing gravity sewer line interceptors, which are aging. Once repaired with an approved technology, the useful life will be extended to 75 + years.

Allocation of funds:

Year: 2021-2022

Amount: \$7,000,000

WSA-9 Scada Radio Upgrades

The existing equipment is aged out and no longer supported. This radio equipment is required to maintain communication with all remote pump stations to provide critical alarms to be transmitted. Once upgraded, the useful life will be 20 years.

Allocation of funds:

Year:	2020-2021
Amount:	\$850,000

WSA-10 Biological Nutrient Reaction Tanks Air Diffuser Upgrade

The current equipment is aged out, well past its useful life and requires extensive repairs. The existing air diffuser system is constructed of PVC. The project will replace the diffusers with new manifolds and membranes, with a projected life of 12 years.

Allocation of funds:

Year: 2021-2022

Amount: \$700,000

WSA-11 Maintenance Service Vehicle

These vehicles are required to perform routine and emergency maintenance at all remote pump stations. The current service vehicle is past its useful life and repairs and are difficult to complete. A new vehicle's useful life is expected at 7+ years.

Allocation of funds:

Year: 2021-2022

Amount: \$60,000

WSA-12 Cedar Swamp HVAC and Wet Well Upgrade

The HVAC no longer exists at this station, and repairs are no longer supported. These HVAC and wet well upgrades, with an estimated 12-year life, would include an odor control system for the station. The lack of this equipment results in significant odors and corrosion to the wet well and system.

Allocation of funds:

Year: 20021-2022

Amount: \$1,000,000

WSA-13 Cedar Swamp Internal Piping and Valve Replacement

Cedar Swamp is a major interceptor pump station, and its valves and piping need to be 100 percent operational. Valves and piping have reached their useful life, and either require extensive maintenance or no longer work. This project would replace all valves and piping, for a useful life of more than 40 years.

Allocation of funds:

Year:	2022-2023
Amount:	\$750,000

WSA-14 Air Ejector Station Replacements

Many of the air ejector stations have reached their useful life. This project will replace all seven (7) air ejector stations with new models that will transform them into a suction lift station with better reliability. Estimated life is 30+ years.

Allocation of funds:

Year:	2022-2023
Amount:	\$1,000,000

WSA-15 Treatment Facility Sludge Dewatering System

This project would involve installing a new dewatering system for sludge that will increase the amount of solids transported from 3 to 5 percent to 24 to 29 percent, thus realizing significant transportation cost savings. The new system's estimated useful life is 20+ years.

Allocation of funds:

Year:	2023-2024
Amount:	\$1,400,000

WSA-16 North Final Clarifier Drive and Skimmer

The existing equipment has reached its useful life. This project would include installation of a new drive assembly with an engineered skimmer to match the efficiency of the other clarifiers, for a useful life of 40+ years.

Allocation of funds:

Year:	2023-2024
Amount:	\$1,200,000

WSA-17 Additional Primary Tank

This project would involve installing a new third primary clarifier tank. This tank, with a projected life of 60+ years, would provide redundancy to the current system, should one of the other two tanks fail, especially during permit season.

Allocation of funds:

Year: 2024-2025

Amount: \$1,500,000

WSA-18 New Flushing Vactor Vehicle

Purchase of a new vehicle would maintain 100 percent operational efficiency for response to emergencies as well as support the established CMOM program. This is a critical piece of emergency equipment, with a projected life of 12+ years.

Allocation of funds:

Year: 2024-2025

Amount: \$550,000

ELEMENT II

APPENDIX

2020 CAPITAL IMPROVEMENT PROGRAM: WATER & SEWER							
Department Project	2020-2021 (000's)	2021-2022 (000's)	2022-2023 (000's)	2023-2024 (000's)	2024-2025 (000's)	Total (000's)	
Water Department							
W-1 Capital Improvements and Infrastructure Replacement	4000	a, d	4000	a, d	4000	a, d	20000
Sewer Authority							
WSA-1 Oakland Beach Interceptor	1300	d					1300
WSA-2 Airport Interceptor Rehabilitation	4500	d					4500
WSA-3 Video Inspection Vehicle	200	a					200
WSA-4 Inlet Grit Conveyor	70	a					70
WSA-5 Maintenance Service Vehicle	50	a					50
WSA-6 Davidson Pump Station Emergency Standby Generator	25	a					25
WSA-7 Bayville Sewer Extension	4774	b, c	11850	b, c			16624
WSA-8 Gravity Sewer Repairs			7000	d			7000
WSA-9 Sarda Radio Upgrades			850	d			850
WSA-10 BNR Tanks Air Diffuser Upgrade			700	d			700
WSA-11 Maintenance Service Vehicle			60	a			60
WSA-12 Cedar Swamp H/VAC and Wet Well Upgrade			1000	d			1000
WSA-13 Cedar Swamp Internal Piping and Valve Replacement							
WSA-14 Air Ejector Station Replacements			750	d			750
WSA-15 Treatment Facility Sludge Dewatering System			1000	d			1000
WSA-16 North Final Clarifier Drive and Skimmer					1400	d	1400
WSA-17 Additional Primary Tank					1200	d	1200
WSA-18 New Flushing Vector Vehicle					1500	d	1500
Total (000's)	14919	25460	5750	6600	6050	58779	
Funding Sources							
A. General Operations	2345	2060	2000	2000	2000		10405
B. Bonds Unissued	3819	9480					13299
C. Bonds Issued	955	2370					3325
D. Future Bond	7800	11550	3750		4600	4050	31750
E. Fed Grant							
F. State Grant							
G. Lease Purchase other							
Total (000's)	14919	25460	5750	6600	6050	58779	

ELEMENT III

FINANCIAL ANALYSIS

III. FINANCIAL ANALYSIS

The financial data upon which this Capital Improvements Program is based is discussed in the following pages. Explanation of the City's current debt obligations and a review of its expenditures and revenues are as follows.

EXPENDITURES

In order to provide background information on the City of Warwick's ability to undertake additional capital improvements financing, the history of City expenditures and revenues is examined in this chapter. The expenditures shown are categorized by expense type.

EXECUTIVE AND ADMINISTRATION

This program includes the departments of Executive, Legislative and Financial Management, and represents approximately 4.7% of the total budget. Included in executive and administration is principal and interest expenses related to debt service. Debt service represents approximately 2.9% of the City budget in fiscal year 2020.

<i>Executive and Administration</i>				
	<i>Administration</i>	<i>Percent of Budget</i>	<i>Debt Service</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$14,641,920	4.55%	\$7,265,853	2.26%
<i>Fiscal Year 2021</i>	\$15,432,426	4.77%	\$8,609,862	2.66%

PUBLIC SAFETY

Public Safety program includes the departments of Police, Fire, Civil Preparedness, Building Inspection and Minimum Housing. These appropriations represent approximately 14.6% of the total city budget.

<i>Public Safety</i>		
	<i>Budget</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$47,494,143	14.76%
<i>Fiscal Year 2021</i>	\$47,263,993	14.61%

SOCIAL SERVICES

Parks and Recreation, Library, and Human Services are included in this category and represent approximately 2 % of the total budget.

<i>Social Services</i>	
<i>Budget</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$7,349,008
<i>Fiscal Year 2021</i>	\$6,552,135
	2.28%
	2.03%

PHYSICAL RESOURCES

This program consists of Planning, Community and Economic Development, and Public Works. This program represents approximately 4.5% of the total city budget.

<i>Physical Resources</i>	
<i>Budget</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$15,671,334
<i>Fiscal Year 2021</i>	\$14,436,714
	4.87%
	4.46%

EMPLOYEE BENEFITS

Fringe Benefits such as health care insurance, FICA, life insurance, pension expense for municipal employees, and worker's compensation are included in this category. These appropriations represent approximately 21% of the total budget.

<i>Employee Benefits</i>	
<i>Budget</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$66,779,939
<i>Fiscal Year 2021</i>	\$68,284,974
	20.75%
	21.11%

SCHOOL DEPARTMENT

The school budget represents the required budget to operate the City of Warwick's School System. This budget represents approximately 53% of the total budget.

	<i>School Budget</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$169,885,902	52.79%
<i>Fiscal Year 2021</i>	\$171,538,668	53.02%

REVENUES

Revenues received by the City by major sources are recorded below.

PROPERTY TAX

In Fiscal Year 2020 the tax base as of December 31, 2018 was \$10,671,824,053. The estimated Fiscal Year 2021 tax base as of December 31, 2019 is \$10,648,031,005.

	<i>FY 2020 Valuation Date December 31, 2018 (\$000,000)</i>	<i>FY 2021 (Estimated) Valuation Date December 31, 2019 (\$000,000)</i>
<i>Residential</i>	\$7,182	\$7,206
<i>Commercial</i>	\$2,383	\$2,386
<i>Tangible</i>	\$558	\$581
<i>Motor Vehicles</i>	\$549	\$476

Figures are at gross assessed valuation. Property Taxes represent approximately 75.3% of the total budget.

	<i>Property Taxes</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$239,362,719	74.38%
<i>Fiscal Year 2021</i>	\$238,121,885	73.61%

STATE AND FEDERAL AID

	<i>State & Federal Aid</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$52,320,570	16.26%
<i>Fiscal Year 2021</i>	\$55,186,874	17.06%

LICENSES & FEES, ENTERPRISE TRANSFERS, AND ALL OTHER

These accounts represent 8.5% of the City's budgeted revenue. They include Municipal Court, billing for rescue services, enterprise transfers, hotel tax, fund balance drawdown, and interest on investments and taxes.

	<i>Licenses & Fees, Enterprise Transfers & Other</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$27,697,754	8.61%
<i>Fiscal Year 2021</i>	\$27,253,679	8.46%

FUND BALANCE DRAWDOWN

	<i>Fund Balance Drawdown</i>	<i>Percent of Budget</i>
<i>Fiscal Year 2020</i>	\$2,441,213	0.76%
<i>Fiscal Year 2021</i>	\$2,847,471	0.88%